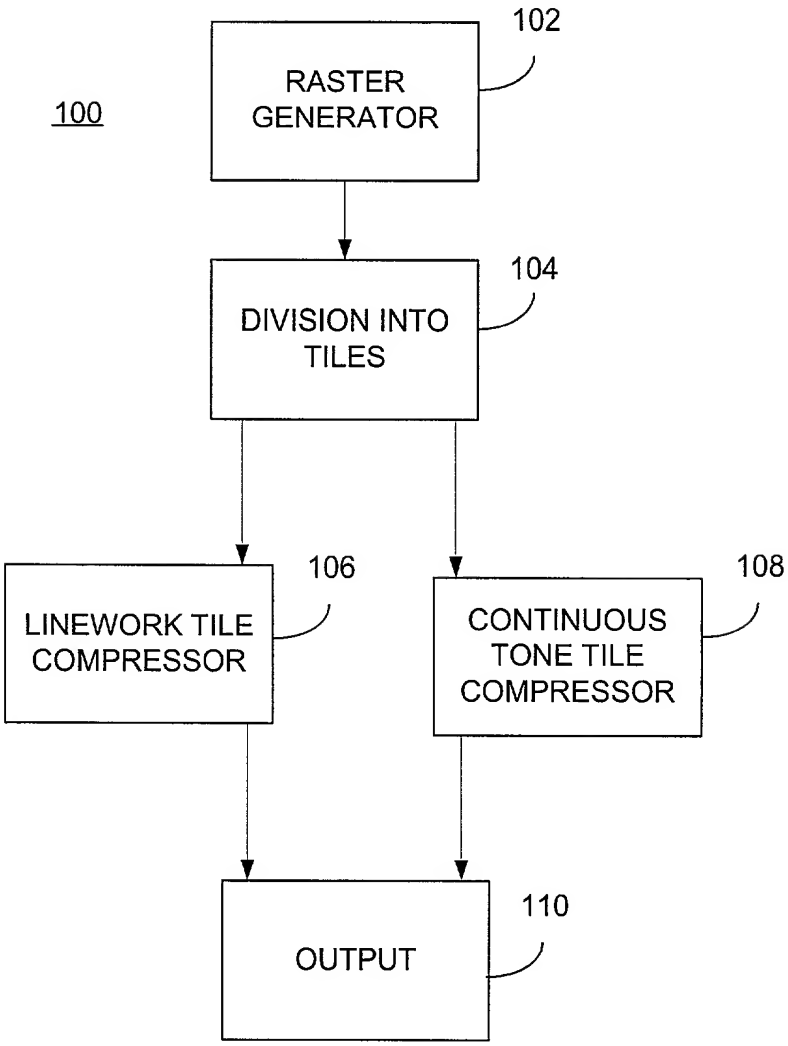

100
RASTER GENERATOR
102
DIVISION INTO TILES
104
LINEWORK TILE COMPRESSOR
106
CONTINUOUS TONE TILE COMPRESSOR
108
OUTPUT
110

FIG. 1

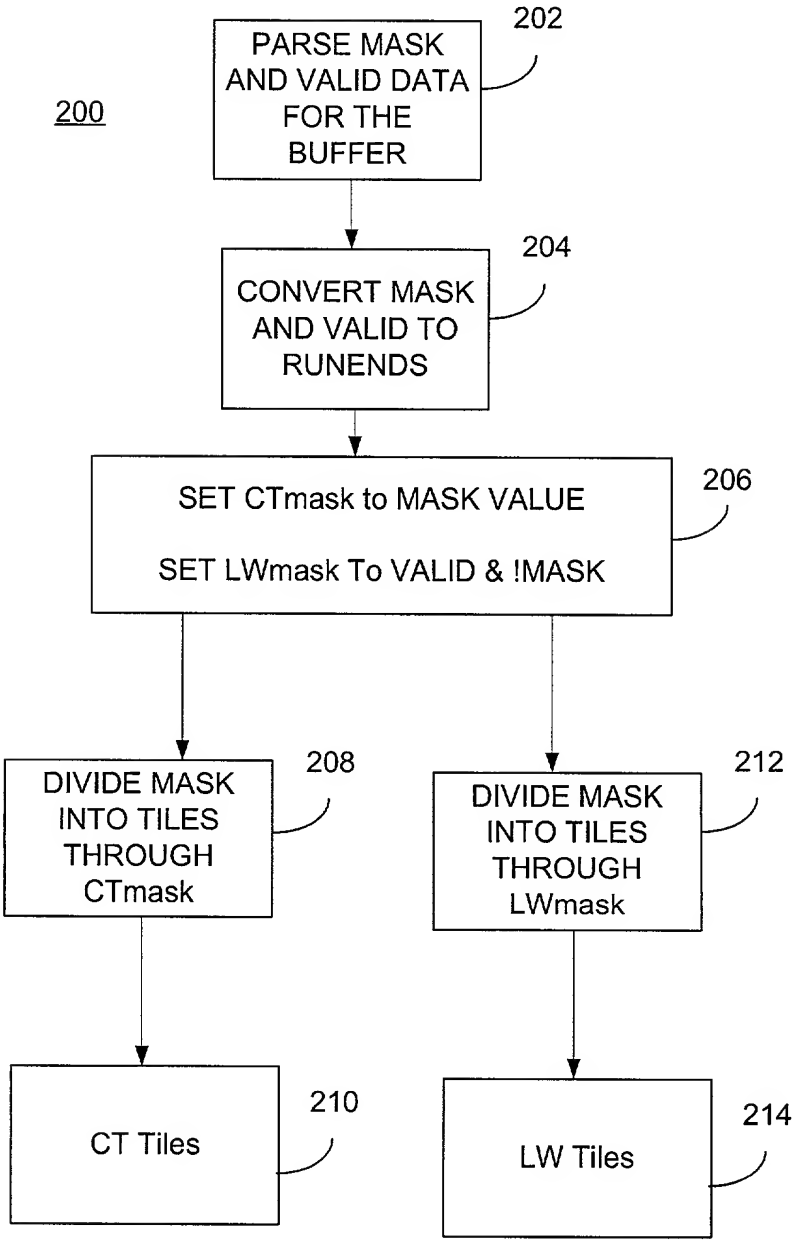

200
PARSE MASK AND VALID DATA FOR THE BUFFER
202
CONVERT MASK AND VALID TO RUNENDS
204
SET CTmask to MASK VALUE
SET LWmask To VALID & !MASK
206
DIVIDE MASK INTO TILES THROUGH CTmask
208
DIVIDE MASK INTO TILES THROUGH LWmask
212
CT Tiles
210
LW Tiles
214

FIG. 2

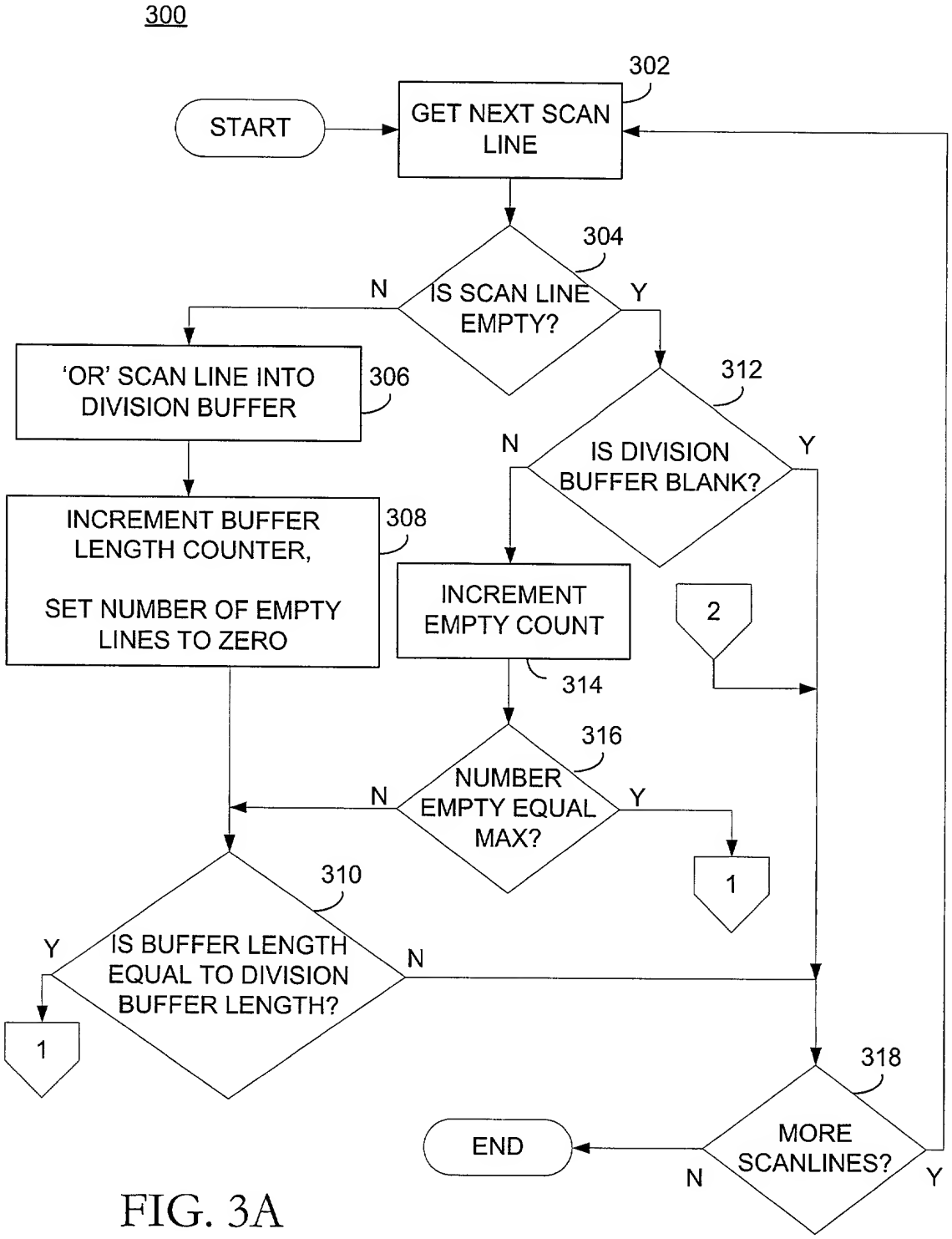

300
302
START
GET NEXT SCAN LINE
304
IS SCAN LINE EMPTY?
N
Y
'OR' SCAN LINE INTO DIVISION BUFFER
306
312
IS DIVISION BUFFER BLANK?
N
Y
INCREMENT BUFFER LENGTH COUNTER,
SET NUMBER OF EMPTY LINES TO ZERO
308
INCREMENT EMPTY COUNT
2
314
316
NUMBER EMPTY EQUAL MAX?
N
Y
1
310
IS BUFFER LENGTH EQUAL TO DIVISION BUFFER LENGTH?
Y
N
1
318
MORE SCANLINES?
N
Y
END

FIG. 3A

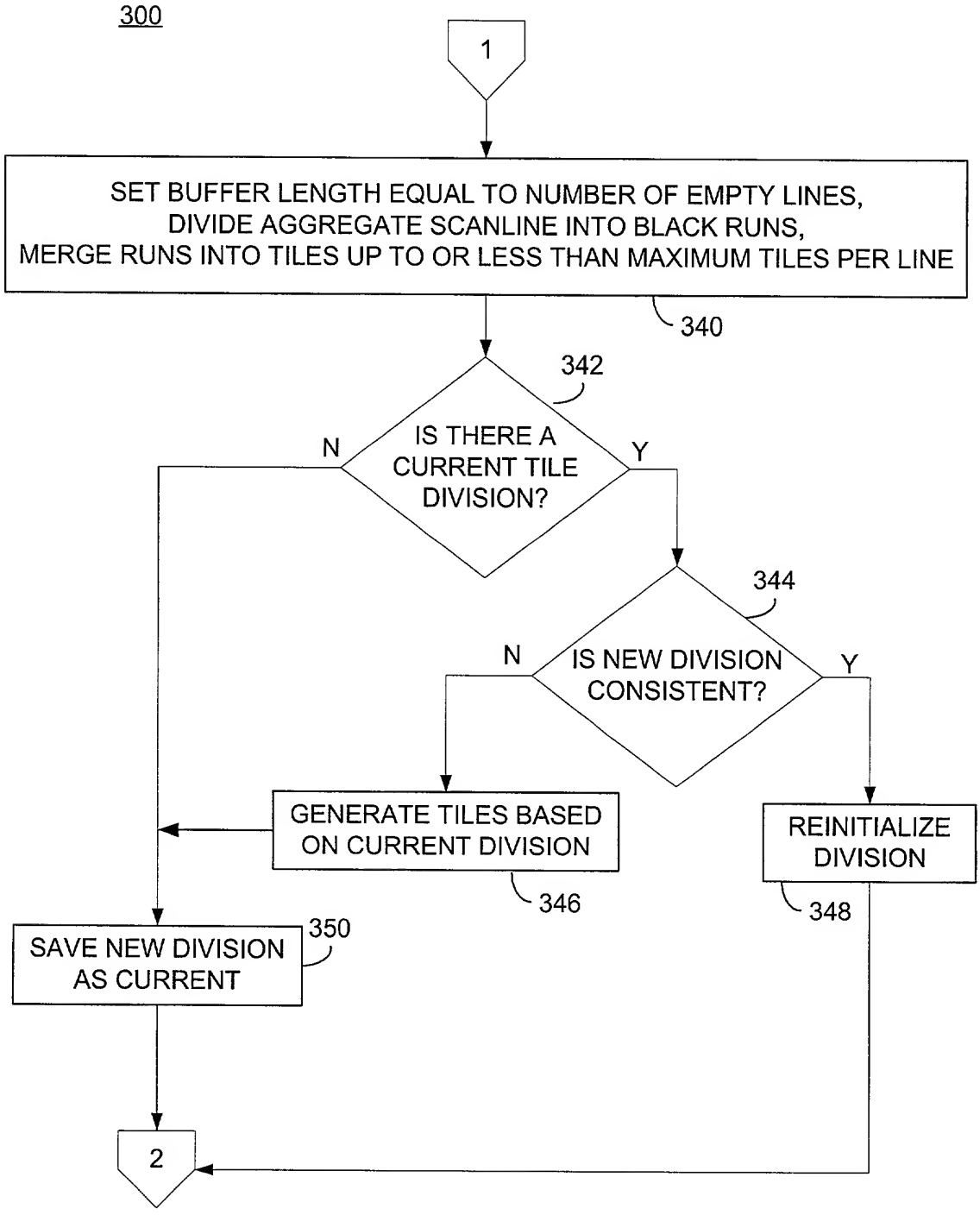

300
1
SET BUFFER LENGTH EQUAL TO NUMBER OF EMPTY LINES,
DIVIDE AGGREGATE SCANLINE INTO BLACK RUNS,
MERGE RUNS INTO TILES UP TO OR LESS THAN MAXIMUM TILES PER LINE
340
342
IS THERE A CURRENT TILE DIVISION?
N
Y
344
IS NEW DIVISION CONSISTENT?
N
Y
GENERATE TILES BASED ON CURRENT DIVISION
346
REINITIALIZE DIVISION
348
SAVE NEW DIVISION AS CURRENT
350
2

FIG. 3B

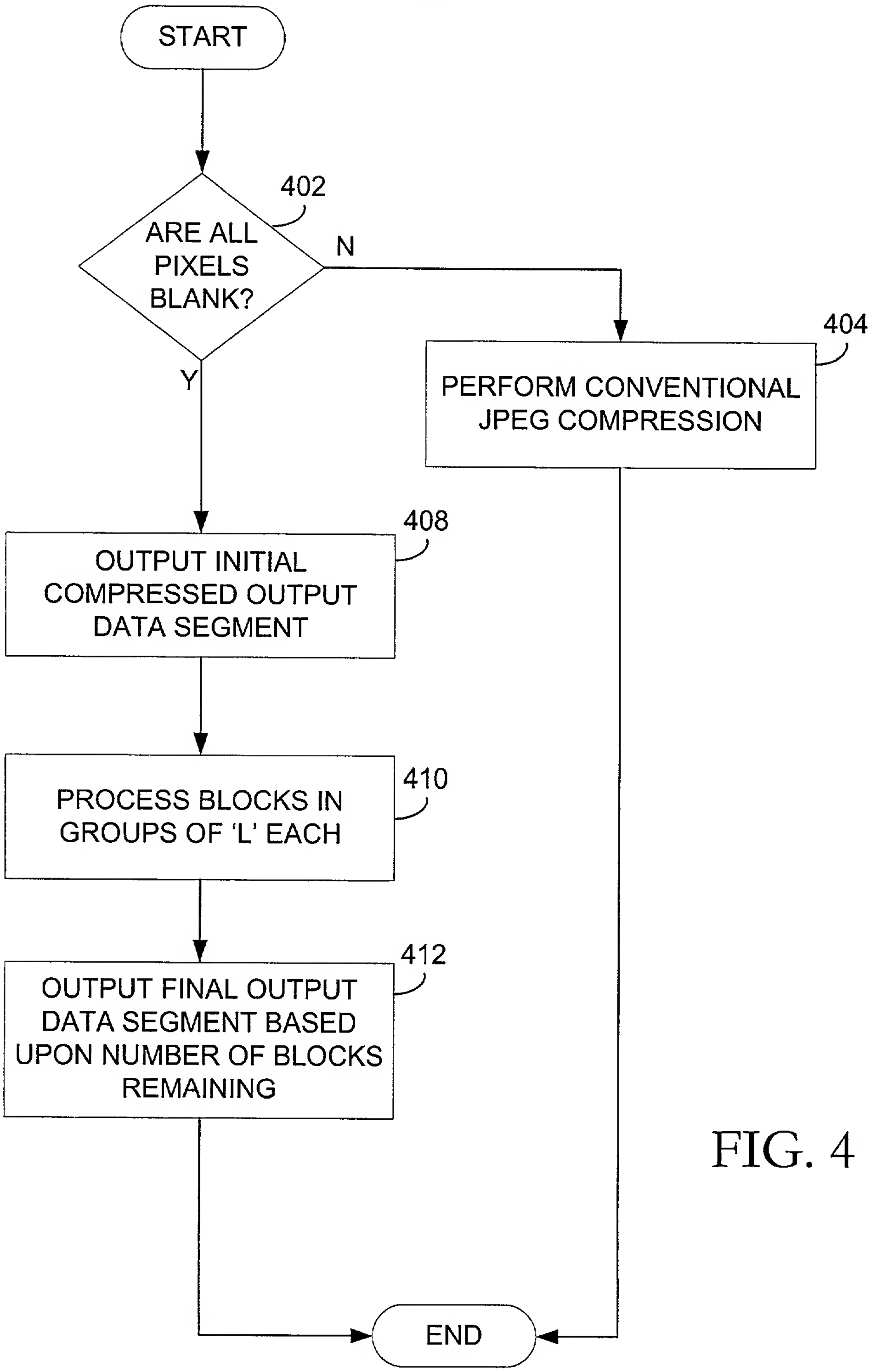


FIG. 4

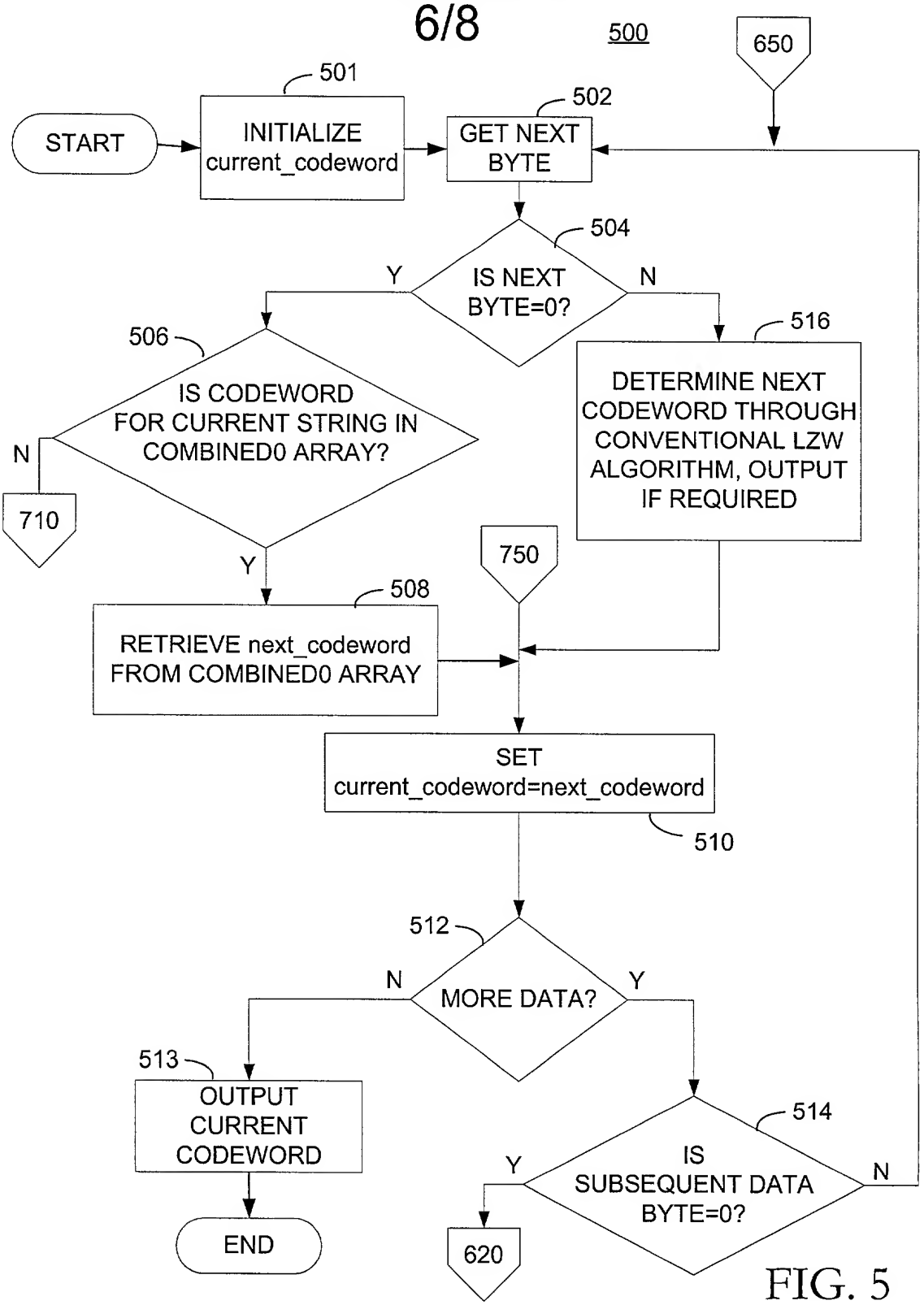
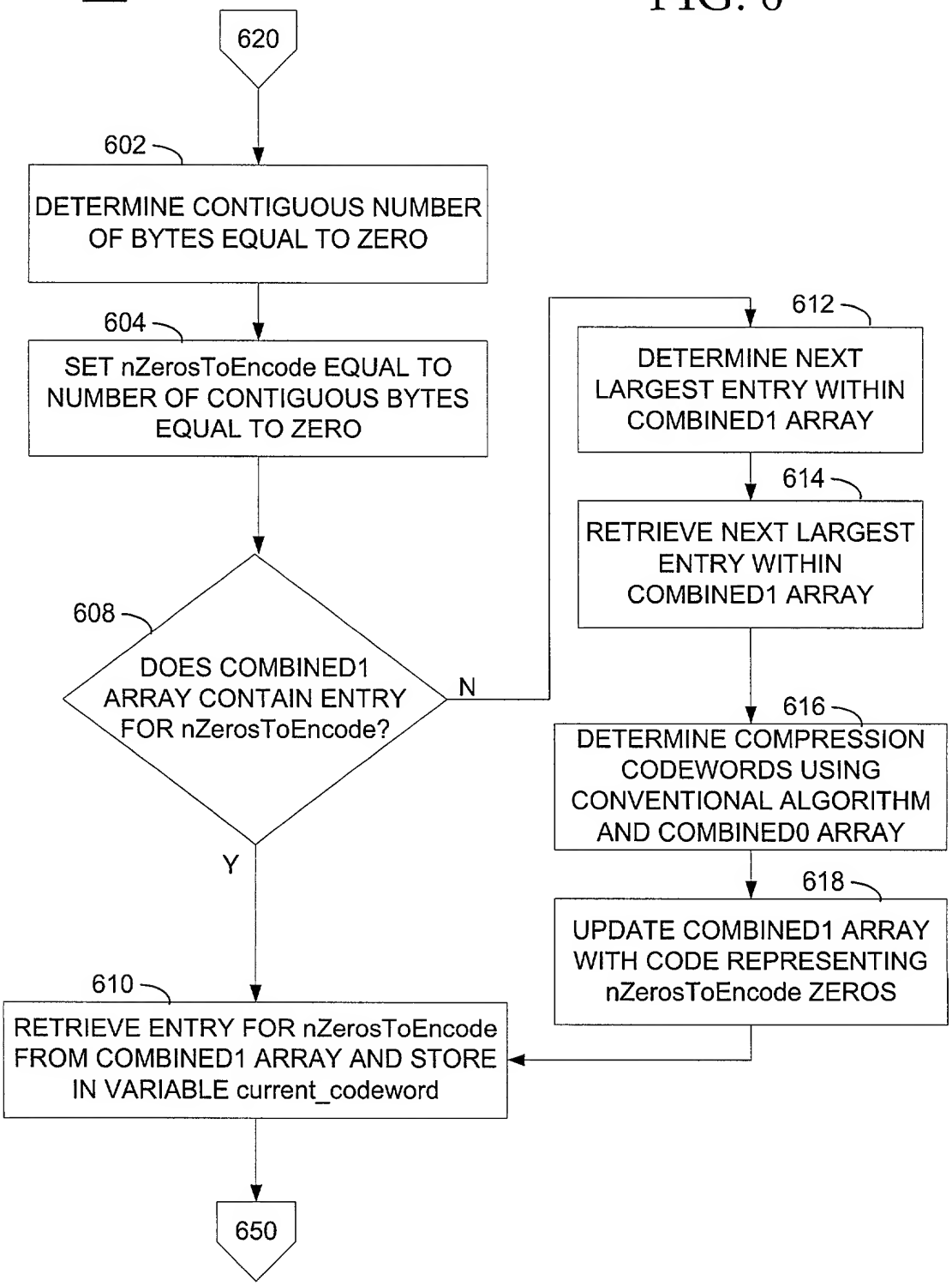

500
650
501
INITIALIZE current_codeword
START
502
GET NEXT BYTE
504
IS NEXT BYTE=0?
Y
N
506
IS CODEWORD FOR CURRENT STRING IN COMBINED0 ARRAY?
N
710
Y
516
DETERMINE NEXT CODEWORD THROUGH CONVENTIONAL LZW ALGORITHM, OUTPUT IF REQUIRED
750
508
RETRIEVE next_codeword FROM COMBINED0 ARRAY
SET current_codeword=next_codeword
510
512
MORE DATA?
N
Y
513
OUTPUT CURRENT CODEWORD
END
514
IS SUBSEQUENT DATA BYTE=0?
Y
N
620

FIG. 5

FIG. 6


600
620
602
DETERMINE CONTIGUOUS NUMBER OF BYTES EQUAL TO ZERO
604
SET nZerosToEncode EQUAL TO NUMBER OF CONTIGUOUS BYTES EQUAL TO ZERO
608
DOES COMBINED1 ARRAY CONTAIN ENTRY FOR nZerosToEncode?
N
Y
612
DETERMINE NEXT LARGEST ENTRY WITHIN COMBINED1 ARRAY
614
RETRIEVE NEXT LARGEST ENTRY WITHIN COMBINED1 ARRAY
616
DETERMINE COMPRESSION CODEWORDS USING CONVENTIONAL ALGORITHM AND COMBINED0 ARRAY
618
UPDATE COMBINED1 ARRAY WITH CODE REPRESENTING nZerosToEncode ZEROS
610
RETRIEVE ENTRY FOR nZerosToEncode FROM COMBINED1 ARRAY AND STORE IN VARIABLE current_codeword
650

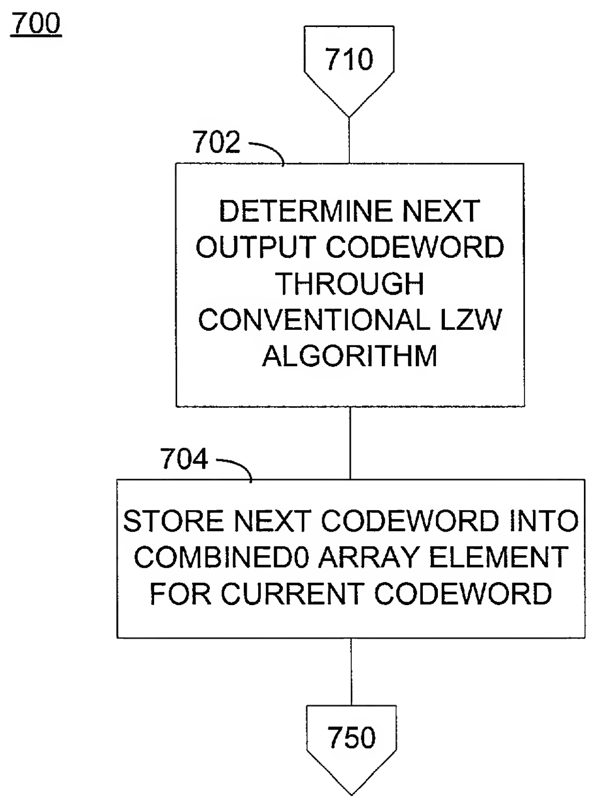


FIG. 7